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Time & frequency coordination using unsteady, varible-precision measurements on meteor burst synchronization and communication equipment

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Abstract

Paper presents methods of overcoming problems of automated time & frequency coordination by meteor burst channel that are caused by its peculiar behavior. Possibility of achieving high coordination precision shown by experiments on synchronization equipment constructed in Kazan State University is described. The main problem treated is reliable carrier frequency phase resolution in time coordination measurements. Results may help construct meteor synchronization equipment for distances 1500-1800 km with errors less than 0.3 nanoseconds.

Keywords

Equipment, Meteor, Phase, Synchronization, Time